

Patent claims

1. Spring/mass vibratory force coupler with variable damping for coupling masses to a reference mass (12), comprising at least a vibratory mass (11), a damper (111), two springs (17, 18), for connecting the vibratory mass (11) and the reference mass (12), of which at least one spring (18) can be optionally connected up, the spring (18) being connected up by means of a coupling element (111) based on an electrorheological or magnetorheological fluid.
2. Device according to Claim 1, characterized in that this additionally has at least one absorber mass (113), which is connected to the mass (11) by means of a spring/damper element (115) which can be connected up if required.
3. Device according to Claim 2, characterized in that connection takes place by means of a coupling element based on an electrorheological or magnetorheological fluid.
4. Device according to Claims 2 to 3, characterized in that it has at least one other auxiliary mass (114), which is connected to the absorber mass (113) by means of another spring/damper element (116), which can be connected up if required.
5. Device according to one of Claims 1 to 4, characterized in that the spring/damper coupling elements are a combination of torsion, coil or gas-pressure springs with dampers based on electrorheological fluids or magnetorheological fluids.
6. Devices according to Claim 5, characterized in that the spring elements are gas-pressure springs (81, 81', 82).
7. Hydraulic suspension system based on two or more gas-pressure springs (81, 81', 82), characterized in that one gas-pressure spring (81) has an ERF or MRF damper element (86) and is connected to another gas-pressure spring (82) by means of at least one other damper or coupling element (87) based on ERF or MRF.

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